

Proposal for Presumptive Remedy (PPR):

Solid waste management facilities conducting groundwater monitoring under the requirements contained in the Virginia Solid Waste Management Regulations (VSWMR) must submit a PPR or [Assessment of Corrective Measures \(ACM\)](#) when a statistical exceedance of a groundwater protection standard (GPS) is observed (9VAC20-81-260.C.1.c). In general, a facility may choose to submit a PPR in lieu of conducting an Assessment of Corrective Measures only when the contamination has not migrated beyond the facility boundary. Per 9VAC20-81-260.C.2.c.(2), a PPR is not applicable when the contamination has migrated beyond the facility boundary unless the facility demonstrates that the presumptive remedy will address the contamination beyond the facility boundary and the demonstration is approved by the department. The end goal of the proposed remedy should be to achieve GPS for the entire plume.

Prior to submitting the PPR report the facility must have details pertaining to the nature and extent (NES) of the release. The function of this nature-and-extent evaluation is to obtain sufficient site-specific data to delineate the plume. The nature and extent evaluation does not require a risk assessment.

9VAC20-81-260.C.2.d.(1) states that an assessment of risks resulting from the contamination at the disposal unit boundary and at the facility boundary must be provided. However, instead of performing a full quantitative risk assessment at both boundaries, at the disposal unit boundary, DEQ will accept a comparison of concentrations of all detected constituents to the GPS. In such case, the PPR should contain a table of the unit boundary GPS comparison and one quantitative risk assessment using data representing groundwater quality at the facility boundary. This information will aid in assessing potential risk at the facility boundary, applicability of the PPR, and management decisions.

Some facilities that have production well(s) on the property may need to conduct, on a case-by-case basis as determined by Regional Office, two risk quantitative assessments: one using data representing groundwater quality at the disposal unit boundary and the second using data representing groundwater quality at the facility boundary.

If the monitoring well network at the facility is not adequate to collect data for risk assessment then the facility should not perform risk assessment for PPR, and should instead opt for [Assessment of Corrective Measures \(ACM\)/Corrective Action Plan \(CAP\)](#). Regional Office will evaluate monitoring well network for adequacy.

For risk assessment purposes, all the detected constituents (above site-specific background) including J-flagged data are considered as constituents of concern (R-COC) even though remediation considerations may be limited to those which exceed GPS. Also, using the results of a risk assessment to justify PPR as the sole remedy is applicable only when:

- plume delineation is complete and plume is within the facility boundary,
- the plume is not expanding,
- there is no discharge into surface water (see special note below about surface water), and
- analytical data has detection limit(s) at or lower than the GPS.

For some facilities that have permanent structures on-site the potential for vapor intrusion exists. Therefore the vapor intrusion pathway may also need to be included in the risk assessment in addition to direct exposure to groundwater via ingestion, dermal contact and inhalation (volatiles and certain semi-volatiles).

In addition to the Submission Instruction for PPR the steps in Risk Assessment (steps [1](#), [2](#), [3](#), and [4](#)) should be consulted. These steps provide the minimum technical content that should be addressed within the risk assessment submitted as part of the PPR. This information has been developed as guidance, and does not replace, change, or supersede any regulation based requirements. For further details, DEQ recommends the use of the Virginia DEQ document titled “Guidance for Development of Health-based Cleanup Goals Using Decision Tree/[REAMS](#) Program (November 1, 1994)”, as well as applicable EPA guidance documents to perform quantitative risk assessments.

The data and result of the quantitative risk assessment can be presented using Risk Assessment Guidance for Superfund (RAGS) part D tables for data presentation found at <http://www.epa.gov/oswer/riskassessment/ragsd/tables.htm>.

State Water Law (62.1 44.5) and Water Regulation (9 VAC 25-260-20.A; 9 VAC 25-31-50.A; 9 VAC 25-32-30.B.1.b) prohibit any constituent discharge to State Waters unless such discharge has been authorized by Permit. Therefore the facility should not submit an ecological risk assessment unless specifically requested by DEQ. Please refer to guidance for ‘Surface water Impacts at Solid Waste Landfills’ dated February 22, 2008 at <http://townhall.virginia.gov/L/ViewGDoc.cfm?gdid=3643>.